

Application No. 10/088,814
Amendment Dated 12 August 2005
Reply to Office Action of 14 March 2005

Remarks/Arguments:

Claims 1-7, 10, 12-14, 19, 20, 25, 27, 29, 30 and 32-40 are pending in the application.

Claims 1-7, 10, 12-14 and 32 have been withdrawn from consideration following a restriction requirement. Claims 19, 20, 25, 27, 29 and 30 are rejected. Claims 33-40 are objected to.

Claims 20, 27, 30, 34-40 remain pending in the application. Claims 1-7, 10, 12-14, 19, 25, 29 and 33 have been cancelled. Claims 20, 27, 30, 34 and 36-40 have been amended as described below. Claims 41-44 have been added.

In response to this Official action:

- Claims 1-7, 10, 12-14, 19, 25, 29 and 33 have been cancelled.
- The subject matter of Claims 25 and 33 have been incorporated into Claim 20 and the conditions of the restriction requirement have been applied to claim 20. In addition proviso ii) has been amended to delete "R⁶" which is not present in the compound of formula (IIC).
- Claim 27 has been amended to be properly dependent from Claim 20. Support for the amendments to this claim are to be found in the specification, for example on page 62 line 18 - page 63 line 5 of the published PCT application.
- Claim 34 has been amended to correct certain typographical errors. Certain duplicate groups have been removed as have groups that do not fall within the scope of amended claim 20. Finally a "3" has been added in 3-methylphenyl this amendment is based on Example 156.
- Claims 36-40 have been made dependent on claim 20.
- New claims 41, 42 and 43 have been added. These claims are various combinations of Claims 35-40 which have already been presented to the Examiner and do not represent added matter.
- New claim 44 has been added directed towards a method of treating cancer comprising administering a compound of Claim 20. Applicants submit that since it is limited to the restricted group of compounds in Claim 20 this new claim does not provide an extra burden for the Examiner to search and should be considered as part of the present invention. This claim is well supported by the specification.

Application No. 10/088,814
Amendment Dated 12 August 2005
Reply to Office Action of 14 March 2005

Restriction Requirement

Examiner proposes two new groups - Group 15 and Group 16 - in this Office Action to accommodate compounds that are not present in Groups 1-14.

As agreed with the Examiner, during a telephone conversation on 11 August 2005 between the Examiner and the undersigned, Applicants hereby elect Group 15 without traverse for examination in this application. To further prosecution, Applicants have accordingly amended the claims to that subject matter within Group 15 and have responded to the Examiner's objections in this response based on the amendments presented herein. Applicants understand the Examiner's intention is for this group to be restricted to compounds of formula IIA or IIC wherein at least one of R^1 - R^4 is $-X^1R^{15}$ and have added the appropriate disclaimer at the end of Claim 20 - "(iii) wherein at least one of R^1 - R^4 is $-X^1R^{15}$ ". Applicants draw the Examiner's attention to the fact that the other definitions of R^1 - R^4 in Claim 20 differ slightly from Claim 19. In Claim 20 the other groups in the definition of R^1 - R^4 are "halo, cyano, nitro, trifluoromethyl, C_{1-3} alkyl, $-NR^{13}R^{14}$, wherein R^{13} and R^{14} , which may be the same or different, each represents hydrogen or C_{1-3} alkyl". Claim 19 has been cancelled. However, Applicants believe that the proviso added to the end of Claim 20 is within the intention of the restriction Group 15 even though the other groups recited within the definition of R^1 - R^4 are slightly different to that indicated by the Examiner in Group 15.

Claim Rejections - 35 USC § 112

Claims 19, 20, 25, 27, 29, 30 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1a) Claims 19 and 20 recited the limitation of "optionally substituted hydrocarbyl group" (e.g., definitions of R^5 and R^6) which the Examiner stated has indefinite metes and bounds because a substituted hydrocarbyl group includes an infinite number of combinations of a hydrocarbyl group with an unlimited number of functional groups and/or rings. Claim 19 has been cancelled. The subject matter of claim 33 has been incorporated into claim 20 removing the terms "optionally substituted hydrocarbyl" and "optionally substituted heterocyclyl" from this claim. Basis for this amendment is found in the description, for example on page 22 line 21 and page 17 line 12 to page 18 line 25 (referring to the published PCT specification). C-ranges for terms like alkyl, alkenyl, alkynyl, alkoxy etc. have also been inserted from page 5 line 1 to 8 (referring

Application No. 10/088,814
Amendment Dated 12 August 2005
Reply to Office Action of 14 March 2005

to the published PCT specification). Applicants believe that this amendment overcomes this rejection.

1b) Claims 19 and 20 recited limitations within parentheses (e.g. "(wherein...)" or "(linked via...)", etc.). The Examiner stated it was unclear whether said limitations were part of the claims, or merely served as examples. Claim 19 has been cancelled. The parentheses have been deleted from Claim 20 and replaced, where appropriate, with a comma. A semi-colon has also been added after the definition of "Z". Applicants believe that this amendment overcomes this rejection.

1c) The Examiner stated Claim 29 was a substantial duplicate of claim 19 because it recited a compound as defined in claim 19 with an intended use. Claim 29 has been deleted rendering this rejection moot.

1d) Claims 25, 27, 29 and 30 are rejected as being dependent on claim 19, and carrying over the rejected limitations. Applicants believe above amendments render these rejections moot.

Claim Rejections - 35 USC § 102

Claims 19, 27, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Kazuo *et. al.*. Claims 19 and 29 have been cancelled. Claim 27 is now dependent on Claim 20. Applicants believe that this amendment overcomes this rejection.

Claim Rejections - 35 USC § 103

Applicant confirms that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made.

The Examiner rejects claim 20 under 35 USC § 103a as being unpatentable over Kazuo *et. al.*. Applicants respectfully disagree. Following amendment of Claim 20 there are now three distinct differences between claim 20 and compound #66:

1. X is defined as only NH and may not be O;
2. there is no substituent in the 2-position of the quinazoline ring; and
3. R⁶⁴ cannot be CF₃.

Applicants submit that Kazuo *et. al.* provides no motivation to make these changes. In particular, all of the compounds covered by Kazuo *et. al.*, both generically and specifically and including compound # 66, are characterized in that the group linking Q to the phenyl group must be -O- (see formula (I)). Kazuo *et. al.* does not disclose alternative linking groups and thus does not

Application No. 10/088,814
Amendment Dated 12 August 2005
Reply to Office Action of 14 March 2005

suggest to the skilled person that compounds having an alternative linking group would possess the same herbicidal activity. The teaching of Kazuo *et. al.* is therefore limited to compounds having -O- as a linking group and there is no incentive for the skilled person to make modifications to this group to arrive at the compounds of claim 20.

Furthermore, Applicants note that the Examiner states that R⁸⁴ not being halogenated alkyl, i.e. CF₃, means that the teaching of Kazuo *et. al.* does not read onto claims 33-37, 39 and 40 (point 6 of the Office Action). By analogy therefore, following the above amendments to claim 20, Kazuo *et. al.* does not read onto Claim 20.

Furthermore, Applicants draw the Examiners attention to the fact that compound #66 is the only compound from a list of 170+ compounds to possess a quinazoline ring. Applicants submit that when a skilled person regarded Kazuo *et al.*, that person would find no motivation to select compound #66 from the 170+ compounds disclosed therein. Nothing in the application would cause the skilled person to consider this particular compound over any other, and particularly not over those compounds where R₂ is triazolyl, pyrazinyl, thiazolyl or 4-pyrimidinyl (which are listed as being preferred). Thus it could be argued that Kazuo *et. al.* teaches away from the present application and only with the benefit of hindsight can the Examiner allege that the compounds of the present application are obvious.

Applicants point out Kazuo *et. al.* provides no motivation to select compound #66 from the 170+ compounds disclosed therein. However, even if Kazuo *et. al.* did provide such motivation, which Applicants believe it does not, Kazuo *et. al.* provides no motivation to make the three changes listed above in order to arrive at the compounds of the claimed invention. Only with the benefit of hindsight could an obviousness rejection be sustained.

In view of the claim amendments and arguments presented above Applicants believe that the rejection of claim 20 under 35 USC 103(a) as being unpatentable over Kazuo *et. al.* cannot be maintained and respectfully request that the Examiner withdraws this rejection.

Claim Objections

Claim 38 was objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim must refer to preceding claims in the alternative language. Claim 38 has been made properly dependent on claim 20. Applicants believe that this amendment overcomes this objection.

Claims 33-37, 39 and 40 were objected to as being dependent upon a rejected base claim (claim 20), but, the Examiner stated, would be allowable if rewritten in independent form including all of

Application No. 10/088,814
Amendment Dated 12 August 2005
Reply to Office Action of 14 March 2005

the limitations of the base claim and any intervening claims. Applicants believe that the amendment to claim 20 and the cancellation of claim 33 removes the objection to Claims 33-37, 39 and 40.

The above amendments have been made without prejudice to Applicants right to prosecute any cancelled subject matter in a timely filed continuation application.

Applicants believe the application is in condition for allowance, which action is respectfully requested

A petition for a 2 month extension of time is being filed herewith, the Commissioner is hereby authorized to charge any deficiency in the fees or credit any overpayment to deposit account No. 50-3231, referencing Attorney Docket No. Z70599-1P US.

Although Applicants believe no excess claim fees are due, the Commissioner is hereby authorized to charge any deficiency in the fees or credit any overpayment to deposit account No. 50-3231, referencing Attorney Docket No. Z70599-1P US.

Respectfully submitted,



Name: Lucy Padget
Dated: 12 August 2005
Reg. No.: L0074
Phone No.: 781-839-4182

Global Intellectual Property, Patents,
AstraZeneca R&D Boston,
35, Gatehouse Drive,
Waltham,
MA 01760

Enclosures: Transmittal Form
Fee Transmittal Form
Petition for extension of time
Request for change in attorney docket number